



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/575,861	04/14/2006	Hiroyuki Motozuka	L9289.06145	6862

52989 7590 08/19/2009

Dickinson Wright PLLC
James E. Ledbetter, Esq.
International Square
1875 Eye Street, N.W., Suite 1200
Washington, DC 20006

EXAMINER

MAI, TAN V

ART UNIT	PAPER NUMBER
----------	--------------

2193

MAIL DATE	DELIVERY MODE
-----------	---------------

08/19/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/575,861	Applicant(s) MOTOZUKA ET AL.	
	Examiner Tan V. Mai	Art Unit 2193	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 7/18 & 4/14/06.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>7/18 & 4/14/06</u> . | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2193

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Master et al (Applicants' admission Prior Art, WO 02/077849).

As per independent claim 1, Master et al disclose, e.g., see Fig. 3, the invention substantially as claimed, including: a reconfigurable matrix (150) which comprises a plurality of computation units (200i) which are interconnected by networks (210 & 240). Each of computation unit (200i) has a plurality of **various computation elements** (250i) which are interconnected by network (220i). It is noted that Master et al do not specifically the claimed "plurality of second cells having n-bit input/output ports and performing bit processing"; however, Master et al disclose "different computation elements (250) are implemented directly as correspondingly different fixed (or dedicated) application specific hardware, such as multipliers, complex multipliers, and **adders**" (see page 12, lines 1-24). It is noted that the adders should be **full adders** (see Fig. 2, elements 195) which perform bit processing. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to design the

claimed invention according to Master et al's teachings because the device a a reconfigurable matrix circuit having a plurality of different computation elements as claimed.

As per claims 2-3, the claim adds the detail of the output of second cell. The detail features are old and well known in the art.

As per claim 4, the claim adds the detail of the carry-output of a first cell coupled to a carry-in of another first cell. The detail features are old and well known in the art, e.g., in the addition, the carry-out of a 4-bit ripple adder is coupled to a carry-in of another 4-bit ripple adder.

4. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Master et al as applied to claim 1 above, and further in view of Shogo (Applicants' admission Prior Art, JP11024891).

Master et al has been discussed in paragraph No. 3 above.

The claim adds a logic circuit of the second cell. Shogo discloses a programmable function block comprises a logic 2 having 5-input/1-output coupled to a full adder 1. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine Shogo's 5 to 1 logic in Master, thereby making the claimed invention, because the proposed device is a reconfigurable matrix having "logic" as claimed.

Art Unit: 2193

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Cited references are art of interest.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tan V. Mai whose telephone number is (571) 272-3726. The examiner can normally be reached on Mon-Wed from 9:30am to 2:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lewis Bullock, Jr. can be reached on (571) 272-3759. The fax phone number for the organization where this application or proceeding is assigned is:

Official (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2100.

/Tan V Mai/
Primary Examiner, Art Unit 2193